MATERIAL SAFETY DATA SHEET

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UNOCAL®

Product Name: UNOCAL MAROK 22D

PRODUCT CODE NO: 04889

ISSUE DATE: 7/16/85

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MANUFACTURER:

UNOCAL REFINING & MARKETING DIVISION UNION OIL COMPANY OF CALIFORNIA 1201 W. 5TH STREET LOS ANGELES, CALIFORNIA 80017

CONTACT FOR FURTHER INFORMATION: MSD5 COORDINATOR (213) 977-7589

Transportation Emergencies: Call CHEMTREC. (800) 424-9300 Cont. U.S. (202) 483-7616 (Collect) from Alaska & Hawaii Health Emergencies: CALL LOS ANGELES POISON INFORMATION CENTER (24 hrs.) (213) 664-2121

PRODUCT IDENTIFICATION

PRODUCT NAME:

UNOCAL MAROK 220

SYNONYMS:

UNION MAROK 220

GENERIC NAME:

INDUSTRIAL OILS

CHEMICAL FAMILY: PETROLEUM HYDROCARBON

DOT PROPER

SHIPPING NAME:

NOT APPLICABLE

ID NUMBER:

NONE

SECTION I - INGREDIENTS

TLY UNITS AGENCY

TYPE

OIL MIST, IF GENERATED

5.00 MG/M3 OSHA

FULL TERM TWA

THE IDENTITIES OF INGREDIENTS THAT ARE TRADE SECRETS ARE EXCLUDED FROM THIS LIST.

SECTION II - EMERGENCY AND FIRST AID PROCEDURES

EMERGENCY

Have physician call LOS ANGELES POISON INFORMATION CENTER (24 hrs.) (213) 664-2121

EYE CONTACT:

FOR DIRECT CONTACT, FLUSH THE AFFECTED EYE(S) WITH CLEAN WATER. IF IRRITATION OR REDNESS DEVELOPS, SEEK MEDICAL ATTENTION.

SKIN CONTACT:

DO NOT USE GASOLINES, THINNERS OR SOLVENTS TO REMOVE PRODUCT FROM SKIN. HIPE MATERIAL FROM SKIN AND REMOVE CONTAMINATED CLOTHING. CLEANSE AFFECTED AREA(S) THOROUGHLY BY WASHING WITH SOAP AND WATER AND, IF NECESSARY, A WATERLESS SKIN CLEANSER. IF IRRITATION OR REDNESS DEVELOPS AND PERSISTS, SEEK MEDICAL ATTENTION.

INHALATION (BREATHING):

IF IRRITATION OF NOSE OR THROAT DEVELOPS, MOVE AWAY FROM SOURCE OF EXPOSURE AND INTO FRESH AIR. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION. IF VICTIM IS NOT BREATHIN OR IF BREATHING DIFFICULTIES DEVELOP, ARTIFICIAL RESPIRATION OR OXYGEN SHOULD BE ADMINISTERED BY QUALIFIED PERSONNEL. SEEK IMMEDIATE MEDICAL ATTENTION.

INGESTION (SWALLOWING):

IF VICTIM IS CONSCIOUS AND ALERT, GIVE 2 TO 3 CUPS OF MILK OR WATER TO DRINK. SEEK MEDICAL ATTENTION. TO PHYSICIAN: EMESIS OR LAVAGE IS NOT RECOMMENDED FOR INGESTIONS OF MINUTE QUANTITIES OR TASTES OF MOST HYDROCARBONS. MEDICAL OPINION IS DIVIDED FOR LARGER INGESTIONS. EMESIS OR LAYAGE HAS BEEN RECOMMENDED FOR THOSE PETROLEUM PRODUCTS WHICH HAVE A HIGH ORAL TOXICITY. GASTRIC LAVAGE WITH A CUFFED ENDOTRACHEAL TUBE IS RECOMMENDED BY SOME PHYSICIANS TO PREVENT ASPIRATION.



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SECTION III - POTENTIAL ADVERSE HEALTH EFFECTS

EYE CONTACT:

THIS MATERIAL MAY CAUSE EYE IRRITATION. DIRECT CONTACT MAY CAUSE BURNING, TEARING AND REDNESS.

SKIN CONTACT:

THIS MATERIAL MAY CAUSE SKIN IRRITATION. PROLONGED OR REPEATED CONTACT MAY CAUSE REDNESS, BURNING AND DERMATITIS.

INHALATION (BREATHING):

EXPOSURE TO MISTS, OR PROLONGED OR REPEATED EXPOSURE TO FUMES OR VAPORS THAT MAY BE GENERATED WHEN THIS MATERIAL IS HEATED, MAY CAUSE IRRITATION OF NOSE AND THROAT.

INGESTION (SWALLOWING):

ACCIDENTAL INGESTION OF THIS MATERIAL MAY CAUSE IRRITATION OF THE DIGESTIVE TRACT.

SECTION IV - SPECIAL PROTECTION INFORMATION

YENTILATION:

IF CURRENT VENTILATION PRACTICES ARE NOT ADEQUATE IN MAINTAINING AIRBORNE CONCENTRATIONS BELOW THE ESTABLISHED EXPOSURE LIMITS (SEE SECTION I), ADDITIONAL VENTILATION OR EXHAUST SYSTEMS MAY BE REQUIRED.

RESPIRATORY PROTECTION:

IF AIRBORNE CONCENTRATIONS EXCEED RECOMMENDED EXPOSURE LIMITS, A SUITABLE FILTER-TYPE RESPIRATOR SHOULD BE WORN. (SEE SECTION I.)

PROTECTIVE GLOVES:

THE USE OF GLOVES IMPERMEABLE TO THE SPECIFIC MATERIAL HANDLED IS ADVISED TO PREVENT SKIN CONTACT AND POSSIBLE IRRITATION.

EYE PROTECTION:

APPROVED EYE PROTECTION TO SAFEGUARD AGAINST POTENTIAL EYE CONTACT, IRRITATION OR INJURY IS RECOMMENDED.

OTHER PROTECTIVE EQUIPMENT:

IT IS SUGGESTED THAT A SOURCE OF CLEAN WATER BE AVAILABLE IN WORK AREA FOR FLUSHING EYES AND SKIN. BARRIER CREAMS THAT ARE SPECIFIC FOR OIL-BASED MATERIALS ARE RECOMMENDED WHEN GLOVES ARE IMPRACTICAL.

SECTION Y - REACTIVITY DATA

STABILITY:

STABLE

CONDITIONS TO AVOID (STABILITY):

AYOID CONTACT WITH ANY SOURCE OF IGNITION.

INCOMPATIBILITY (MATERIALS TO AVOID):

AVOID CONTACT WITH STRONG ACIDS AND OXIDIZING AGENTS. EXTENDED EXPOSURE TO HIGH TEMPERATURES MAY CAUSE DECOMPOSITION.

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SECTION Y - REACTIVITY DATA

HAZARDOUS DECOMPOSITION PRODUCTS:

THERMAL DECOMPOSITION IN THE PRESENCE OF AIR MAY YIELD MAJOR AMOUNTS OF OXIDES OF CARBON AND MINOR AMOUNTS OF OXIDES OF SULFUR AND NITROGEN.

HAZARDOUS POLYMERIZATION:

WILL NOT OCCUR

SECTION VI - SPILL OR LEAK PROCEDURES

HIGHWAY OR RAILWAY SPILLS Call CHEMTREC (800) 424-9300 Cont. U.S. (Collect) (202) 483-7616 from Alaska & Hawaii

PRECAUTIONS IN CASE OF RELEASE OR SPILL:

COLLECT LEAKING LIQUID IN SEALABLE CONTAINERS. ABSORB SPILLED LIQUID IN SAND OR INERT ABSORBANT. CONTACT FIRE AUTHORITIES AND APPROPRIATE STATE/LOCAL AGENCIES. IF SPILL OF ANY AMOUNT IS MADE INTO OR UPON U.S. NAYIGABLE WATERS, THE CONTIGUOUS ZONE, OR ADJOINING SHORELINES, NOTIFY COAST GUARD NATIONAL RESPONSE CENTER (PHONE NUMBER 800-424-8802).

WASTE DISPOSAL METHOD:

DISPOSE OF PRODUCT IN ACCORDANCE WITH LOCAL, COUNTY, STATE, AND FEDERAL REGULATIONS.

SECTION VII - STORAGE AND SPECIAL PRECAUTIONS

HANDLING AND STORAGE PRECAUTIONS:

STORE IN A COOL, DRY LOCATION. KEEP AWAY FROM INCOMPATIBLE MATERIALS (SEE SECTION V). AYOID GENERATING OIL MISTS WHILE HANDLING. AYOID PROLONGED OR REPEATED SKIN CONTACT. WASH THOROUGHLY AFTER HANDLING. DO NOT WEAR OIL-SOAKED CLOTHING OR SHOES.

SECTION VIII - FIRE AND EXPLOSION HAZARD DATA

HAZARD RANKING

NFPA HEALTH HAZARD: 0 HAZARD FLAMMABILITY: 1 CLASS

REACTIVITY: 0

O = LEAST 1 = SLIGHT DOT FLAMMABILITY CLASSIFICATION

FLASH POINT

3 = HIGH OTHER:

2 = MODERATE 4 = EXTREME

NOT REGULATED

329 F 165 C

EXTINGUISHING MEDIA:

EXTINGUISH WITH DRY CHEMICAL, CO2, WATER SPRAY, FOAM, SAND OR EARTH. WATER AND FOAM MAY CAUSE FROTHING.

FIRE & EXPLOSION HAZARDS:

THIS MATERIAL WILL BURN, BUT WILL NOT IGNITE READILY.

FIRE FIGHTING PROCEDURES:

WATER SPRAY MAY BE USEFUL IN MINIMIZING VAPORS AND COOLING CONTAINERS EXPOSED TO HEAT AND FLAME. AYOID SPREADING BURNING LIQUID WITH WATER USED FOR COOLING PURPOSES. MOVE UNDAMAGED CONTAINERS FROM FIRE AREA IF YOU CAN DO SO WITHOUT RISK.

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SECTION IX - PHYSICAL DATA

APPROX. BOILING RANGE

YAPOR DENSITY

EVAPORATION RATE

% YOLATILE

ABOVE 550 F (288) C

HEAVIER THAN AIR

SLOWER THAN ETHER

NEGLIGIBLE

% SOLUBILITY IN WATER

SPECIFIC GRAVITY

APPEARANCE

ODOR

NEGLIGIBLE

0.91 - 0.93

CLEAR, BROWN

CHARACTERISTIC

SECTION XI - DOCUMENTARY INFORMATION

ISSUE DATE: 7/16/85 PREV. DATE: 8/ 8/84

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